

## NEW CARIBBEAN MARINE SHELLS

BY HARALD A. REHDER<sup>1</sup>

(Plate 7)

In the preparation for publication of Charles W. Johnson's "List of Marine Mollusca of the Atlantic Coast from Labrador to Texas" William J. Clench came across several names given by Dr. Dall of species which had never been described, but which had appeared as *nomina nuda* in faunistic literature. On communicating with me concerning these names, I looked up the type lots, and wrote out descriptions of the three species in question, which appear now, together with figures, in this paper.

**Modiolus (Amygdalum) sagittatus**, new species. Plate 7, figs. 11, 12.

1889. *Modiola picta sagittata* Dall, Bull. 37, U. S. Nat. Mus., p. 38. [n.n.]

1934. *Modiolus politus sagittatus*, Johnson, Proc. Boston Soc. Nat. Hist., vol. 40, p. 28. [n.n.]

Shell rather small, thin, moderately inflated; in outline ovate, posteriorly broadly convex, anteriorly somewhat attenuated; in general, similar in shape to *Modiolus politus* V. & S. Color opaque ivory white, except for a triangular area running from the beaks to the posterior margin, which is closely maculated with longish, transparent spots. Umbos rather prominent, situated one-eighth of the total length from the anterior end. Surface smooth, glossy, without sculpture, except for microscopic growth lines.

The holotype (U.S.N.M. no. 93999), from the Gulf of Mexico, off Cape San Blas, Florida (U.S.B.F. sta. 2400) measures: length 16.8 mm., height 9.0 mm., breadth 4.6 mm. A paratype, from the same lot, has the following measurements: length 15.5 mm., height 7.9 mm., breadth 4.3 mm., while a specimen from off Cape Florida (U.S.N.M. no. 93406) measures: length 17.9 mm., height 9.1 mm., breadth 4.6 mm.

This species has so far been found in only two areas, in 85 fathoms off Cape Florida, on the east coast of Florida, and in 111-196 fathoms off Cape San Blas, Florida, in the Gulf of Mexico.

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Dall considered this a subspecies of *Modiolus politus* Verrill and Smith. I believe it should be accorded specific rank, differing from that species in being less inflated, and in possessing a different and unique pattern of color-markings. It is much closer to *M. pallidulus* Dall from California, which has the same general coloration, but it is not so prominent nor so contrasted.

**Pseudomalaxis (Paurodiscus) lamellifera**, new subgenus, new species. Plate 7, figs. 8–10.

1889. *Omalaxis lamellifera* Dall, Bull. 37, U. S. Nat. Mus., p. 148. [n.n.]

1892. *Discohelix (Discosolis) lamellifera*, Dall, Trans. Wagner Free Inst., vol. 3, p. 332. [n.n.]

1934. *Omalaxis lamellifera*, Johnson, Proc. Boston Soc. Nat. Hist., vol. 40, p. 101. [n.n.]

Shell small, discoidal, flattened on the upper surface, broadly umbilicate below, the early whorls slightly exerted above the surface of the last whorl. Color greyish white, the periostracum yellowish brown. Nuclear whorls smoothish, inverted (the nucleus has been broken off since these characters were noted). Postnuclear whorls, of which there are about three, have very faint axial riblets, which gradually increase in strength, as does the subsutural cord, which appears in the early whorls. The last whorl is almost quadrangular, the right angles which bound the peripheral surface marked by cordlike carinae; the upper surface somewhat depressed at the suture, the lower surface rounded at the edge of the umbilicus. The whole surface is sculptured with prominent, rather closely set, retractively curved ribs; they are more prominent, almost nodulose, where they cross the carinae, and they are symmetrically arcuate on the peripheral surface, between the carinae; near the mouth the ribs are more closely and irregularly set, their prominence being largely due to the folding of the periostracum. The mouth has been broken away, but the broken aperture is rounded, while the carinae give the outer edge an angular appearance.

The unique holotype (U.S.N.M. no. 426235) was dredged in the Florida Straits in 205 fathoms, and measures 3 mm. in width and 1 mm. in height.

This species was first placed by Dall under *Omalaxis* Deshayes. This genus, however, whose type is *O. bifrons* Desh., is quite a different group, restricted to the Eocene, and having an orthostrophic nucleus. Three years later Dall transferred this species to *Discohelix* Dunker, a Mesozoic genus, also with an orthos-

trophic nucleus, according to Cossmann. Dall, however, made a new subgenus, *Discosolis*, for the recent American forms, *Omalaxis nobilis* Verrill and *lamellifera* Dall.

Fischer, in erecting the subgenus *Pseudomalaxis* for *Bifrontia zancalea* Phil., confused under this species two forms, the original *B. zancalea* from the Tertiary of Sicily, and a living form, with detached whorls, from the Mediterranean and Madeira, which possesses a Torinoid operculum. Monterosato (Proc. Malac. Soc. London, vol. 10, 1913, p. 362) correctly restricted *Pseudomalaxis* to the fossil form, raising it to generic rank, and describing a recent species from the Mediterranean, *P. actoni*, which closely resembles the fossil type species, and is even more closely related to *P. nobilis* Verrill from our coast. *Discosolis*, therefore, becomes a synonym of *Pseudomalaxis*.

*Pseudomalaxis lamellifera*, although related to *P. nobilis*, differs in several important respects, and needs to be placed in a new subgenus, which may be called PAURODISCUS, differing from *Pseudomalaxis* s. s. in the following respects: shell much smaller; axial sculpture much stronger, and no spiral sculpture (as in *nobilis*); umbilical carina absent.

Dall placed in *Discosolis* also a species from the Caloosahatchie Pliocene, *D. retifera* (Trans. Wagner Free Inst., vol. 3, 1892, p. 332, pl. 19, figs. 1, 1b, 1c), which differs in having strong spiral striae nodulating the axial ribs, and in possessing a very strong umbilical carina, which is heavily denticulated. This may form the type of a genus which I shall call *Calodisculus*, and which I place near *Architectonica*; in the general nature of the sculpture, and in the form of the umbilical keel, it seems closer to this genus than to *Pseudomalaxis*.

**Sayella livida**, new species. Plate 7, fig. 7.

1893. *Sayella livida* Dall, Singley, Fourth Ann. Rep. Geol. Survey Texas, p. 343. [n.n.]

1934. *Sayella livida*, Johnson, Proc. Boston Soc. Nat. Hist., vol. 40, p. 159. [n.n.]

Shell small, elongate-ovate, straw-yellow, with a rather wide, subsutural, white band. Nuclear whorls about  $1\frac{1}{4}$ , inverted, colorless, glassy, smooth. The remaining  $6\frac{1}{2}$  whorls moderately convex, smooth except for fine growth lines, and crowded microscopic spiral sculpture; whorls closely appressed at the suture,

which is rather fine; last whorl half the length of the shell, its suture considerably below the periphery of the preceding whorl, giving the shell a constricted appearance in the middle. Aperture rather small, obliquely ovate; lip thin, thickening anteriorly, and passing into the base of the columella which is twisted into a strong fold; this part of the peristome is of a red-brown color, as is the area immediately surrounding the base of the columella.

The holotype (U.S.N.M. no. 125556), which was collected at Corpus Christi Bay, Texas, by J. A. Singley, measures 3.6 mm. in height, and 1.6 in width. A paratype from the same lot measures: height 4 mm., width 1.7 mm.

This is very close to *Sayella hemphilli* Dall, from Cedar Keys, Florida, but is less inflated, and has a constricted appearance in the penultimate whorl, mentioned in the description above. The examination of more material, however, from the region between the localities of the two species, may show that the two forms are actually one.

Dall placed *Sayella* in the Ellobiidae, but it seems that they really belong in the Pyramidellidae, and near the group that has been called *Syrnola*, containing *S. fusca* C. B. Adams, *producta* C. B. Adams, and related species. Bartsch referred these species to *Syrnola* with some doubt, and it seems probable that they should be removed from this genus, which has as a type a Japanese species of quite different appearance. It is possible that these species will find a place in the genus *Sayella*; a problem, however, that for the present I will not attempt to solve.

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## WEST AMERICAN SPECIES OF GONIOBASIS, WITH DESCRIPTIONS OF NEW FORMS

JUNIUS HENDERSON

**Goniobasis orickensis**, new species. Plate 4, fig. 10.

Shell solid, much resembling an elongate, slender *G. circumlineata* Tryon; surface dull, growth lines coarse; young specimens and upper whorls of adults dark reddish brown, due to coalescence of two or more dark color bands, often with a lighter band just below the suture; lower whorls horn colored, light brown or with a slight greenish cast, bands obsolete except a dark